UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,554	05/08/2001	Stepan Sokolov	SUN1P833/P6212	4023

22434 7590 05/02/2005	**EXAMINER**	
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ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>31 March 2005</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

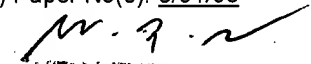   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered ~~and an explanation of how the new or amended claims would be rejected is provided below or appended.~~

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-4 and 6-21*.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
    <u>See Continuation Sheet.</u>

12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). <u>3/31/05</u>

13. ☐ Other: _____.

WEI Y. ZHEN
PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because:

Applicant contends that the verifier described by Steele does not teach or suggest determining whether a Java command is likely to place the only reference to a Java object on an execution stack (Applicant's remarks, page 7, item A).

However, the examiner maintains that Steele discloses determining whether the stack operands and results of Java instructions or commands are references to objects (see, for example, column 8, lines 28-39). Therefore, Steele discloses determining whether a Java command is likely to place a reference to a Java object on an execution stack. Steele further discloses determining the number of reference variables (see, for example, column 16, lines 48-49). By determining the number of reference variables, Steele determines whether there is only one reference variable. If there is only one reference variable, then there can be only one reference to an object. Therefore, Steele discloses determining whether a reference is the only reference to a Java object.

Applicant contends that determining control paths taught by Agesen does not teach or suggest determining whether there is a change in the flow control (Applicant's remarks, page 7, item B).

However, as Applicant acknowledges, Agesen teaches determining whether an instruction sequence includes code defining at least two control paths leading to a common jsr subroutine (Applicant's remarks, page 7, last paragraph). In fact, Agesen further discloses identifying a variable from both paths that is used after the return from the subroutine on at least one of the paths (see, for example, column 12, lines 56-64). A jump to a subroutine (jsr) and a return from the subroutine are examples of changes in the flow control. Therefore, the examiner maintains that by determining the control paths and the jumps to and returns from a subroutine in an instruction sequence, Agesen determines whether there is a change in the flow control.

Applicant contends that Agesen does not teach or suggest determining whether there is a change in flow control in connection with determining whether a command is likely to place a reference to an object on an execution stack (Applicant's remarks, page 8, item C).

However, as presented in the previous Office action, the rejection of claim 1 is based on a combination of Steele and Agesen. As noted above, Steele discloses determining whether a command is likely to place a reference to an object on an execution stack, and Agesen discloses determining whether there is a change in flow control. Nonetheless, Agesen further discloses determining whether there is a change in flow control in connection with determining whether a variable is a reference (see, for example, column 12, lines 51-53 and 56-64). The references are placed by commands on an execution stack (see, for example, column 8, lines 7-11).

Applicant contends that the examiner has not made a prima facie case of obviousness because the examiner has failed to provide a motivation or suggestion for combining Agesen and Steele (Applicant's remarks, page 8, item D).

However, the motivation to supplement Steele with Agesen so as to improve garbage collection is indeed found within the references. For example, Agesen discloses that the invention can "improve exact garbage collection" (see column 12, lines 51-53). The feature of Agesen for determining whether there is a change in flow control is used to remove reference conflicts (see, for example, column 12, lines 56-64). Agesen expressly discloses that "by eliminating such conflicts, a garbage collector ... can effectively reclaim memory space during execution" (see column 12, lines 64-67). One of ordinary skill in the art would have been motivated to improve garbage collection in this manner. The combination of Steele and Agesen would have been obvious because Steele is similarly concerned with effective garbage collection (see, for example, column 4, lines 23-29).

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